

WHAT IS CLAIMED IS:

1. A digital motion picture decoding apparatus comprising an input buffer memory for storing coded data to be decoded, a reproduced picture memory for storing the decoded picture data to be displayed, and a display picture deciding means for deciding from the picture data stored in the reproduced picture memory a reproduced picture to be output, said decoding apparatus further comprising:

a program changing means for changing the type of the coded data to be decoded;

a program change detecting means for detecting from the output of the program changing means that the type of the coded data to be decoded is changed; and

a display state maintaining means for controlling the picture data output from the reproduced picture memory so as to maintain the display state of the reproduced picture being currently displayed according to the decision of the display picture deciding means, when it is detected from the output of the program change detecting means that the change of the type of the coded data to be decoded makes the coded data not continuous in time sequence.

2. The digital motion picture decoding apparatus defined in claim 1 wherein the program change detecting

means detects from an output of the program changing means a difference between a normal reproduction state and a reproduction state after change of program or a reproduction state at a reproduction rate different from the normal reproduction rate.

3. The digital motion picture decoding apparatus defined in claim 1 further comprising an input buffer memory erasing means for erasing the coded data to be decoded which is stored therein, when the program change detecting means detects that the data subjected to decoding is not continuous in time sequence.

4. A digital motion picture decoding apparatus comprising an input buffer memory for storing coded data to be decoded, a reproduced picture memory for storing decoded picture data to be displayed, and a display picture deciding means for deciding from the picture data stored in the reproduced picture memory a reproduced picture to be output, said decoding means further comprising:

a program changing means for changing the type of the coded data to be decoded;

a program change detecting means for detecting from the output of the program changing means that the type of the coded data to be decoded is changed;

a reproduced picture memory nullifying means for nullifying the data stored in the reproduced picture memory other than the data corresponding to the reproduced picture being currently displayed, when it is detected from the output of the program change detecting means that the change of the type of the coded data to be decoded makes the coded data not continuous in time sequence.

5. The digital motion picture decoding apparatus defined in claim 4 comprising a reproduced picture area managing means for managing memory area information used when the decoding means writes the decoded picture data into the reproduced picture memory, wherein

the reproduced picture memory nullifying means erases the memory area information corresponding to the data stored in the reproduced picture area managing means except the data corresponding to a reproduced picture being currently displayed.

6. The digital motion picture decoding apparatus defined in claim 4 wherein the reproduced picture memory nullifying means erases the data in the reproduced picture memory except the data corresponding to the reproduced picture being currently displayed.

7. The digital motion picture decoding apparatus defined in claim 4 wherein picture data to be decoded next is written into a nullified memory area of the reproduced picture memory.

8. A digital motion picture decoding apparatus comprising an input buffer memory for storing coded data to be decoded, a reproduced picture memory for storing decoded picture data to be displayed, and a display picture deciding means for deciding from the picture data stored in the reproduced picture memory a display picture to be output, said decoding apparatus further comprising:

a program changing means for changing the type of the coded data to be decoded;

a program change detecting means for detecting from the output of the program changing means that the type of the coded data to be decoded is changed; and

a decoding stopping means for stopping decoding processing by the decoding means and controlling the decoding means such that the data being in the process of decoding at that time is written into the reproduced picture memory as the already decoded one, when it is detected from the output of the program change detecting means that the change of the type of the coded data to be decoded makes the coded data not continuous in time sequence.

9. A digital motion picture decoding method comprising the steps of:

detecting whether data is continuous in time sequence during decoding processing; and

maintaining the display state of a reproduced picture being currently displayed when it is found in the first step that the data is not continuous in time sequence during the decoding processing.

10. A digital motion picture decoding method comprising the steps of:

detecting whether data is continuous in time sequence during decoding processing; and

nullifying data other than the one corresponding to a reproduced picture being currently displayed, when it is judged in the first step that the data is not continuous in time sequence during the decoding processing.

11. The digital motion picture decoding method defined in claim 10 further comprising a step of stopping decoding processing and processing the data being currently decoded at that time as the already decoded one, when it is judged in the first step that the data is not continuous in time sequence during the decoding processing.